USER MANUAL

DYNAMIX

KNOWING • CHOOSING • SOLVING

GLOBAL THERAPY

Thanks for having choose Dynamix.

Ensure to read all instructions carefully for optimal performance
of device and store them in a way that anyone who uses the product will be able to consult

Manufacturer reserves the right to modify technical specifications
in this manual at any time and without notice.

Use only original accessories

Only original accessories are specifically designed and certified by manufacturer for use with DYNAMIX. If you use other kind of accessories from other manufacturers the DYNAMIX could be-damaged and void the warranty.

It is strictly forbidden to reproduce, transmit, transcribe, insert in a retrieval system of information, translate into any language in any form or by any means, even partial, of this manuals supplied with this device, without written permission of the manufacturer.

Notice for European User

This symbol means that electrical and electronic products have to be disposed in the appropriate waste containers. This instruction is applied only to users in European countries:

This product must be disposed in the appropriate waste container. Do not be disposed with household garbage.

A differentiaded collection and recycling help to conserve natural resources and prevent negative consequences for human health and the environment which might be caused by improper disposal.

For more information, please contact your local authorities responsible for waste disposal.

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1 Introduction

IINTRODUCTION
Dynamix exploit use of the physics of electrical signals for therapeutic purposes.
Designed and developed by treatments in the fields of:
Aesthetic Medicine and Dermatology
Vascular Medicine
Physiotherapy Rehabilitation
Sports Medicine
Use of smart accessories that make up the device , allows to reduce risks arising from improper use of the device.
The non-invasive method , expand greatly the target of people that can be offered.
Application protocols are performed through use of standard technologies and already described in the literature , such as:
Diathermy Mechanics : obtained through use of a generator / regulator voltage and specific ultrasound applicators .
Electromagnetic diathermy : obtained through use of RF generator and type of specific applicators resistive and capacitive .
Microcurrents : obtained through use of a generator voltage / costant current and specific applicators of type resistive .
Transdermal transmissive : obtained through use of a function generator that uses the technique of " eporazione transdermal " and specific applicators and active principles

AIM OF INSTRUCTION MANUAL
This manual must be considered an integral part of the machine, so it have to follow all its operational life.
 You should give this manual also to new owner when you will sell device.
Keep this manual in a place protected from agents that can cause unnecessary damage and easily reached by operator.

-It is important to read this manual very carefully before using device and whenever you have-doubts regarding the functioning

- Particular attention should be paid to safety precautions as may otherwise result in accidents harmful to both people and for the device itself.

- You can also find useful information which will facilitate use and maintenance.

- The list of spare parts is not part of the manual, because is deposited only at authorized

dealers.

-If the manual will be lost a ask directly to the manufacturer a duplicate.

-It is recommended keep the manual near device, and always accessible to the user in

suitable place and do not to compromise the integrity of it.

2 Package content

Device is provided with all the equipment below, so once you open the packaging, check that the basic model is complete. If any item is missing, immediately contact your agent and / or distributor.

M2.010.1: DYNAMIX

BASIC DIAT FULL

AA.001.1: SUPPORTO ELETTRODI

OPTIONAL

X2.600.1: CAVO DI RETE

BASIC DIAT FULL

S3.030.1: MANUALE D'USO

BASIC DIAT FULL

C1.001.1: NEUTRAL GEL

BASIC DIAT FULL

C1.002.1: NEUTRAL CREAM

BASIC DIAT FULL

A2.015.1: STICK TIPO-B

BASIC DIAT FULL

A2.001.1: STICK TIPO-A

BASIC DIAT FULL

A1.018.1: 50mm US-Radial

BASIC DIAT FULL

A1.019.1: 50mm US-Focused

BASIC DIAT FULL

A1.020.1: 15mm US-Sphere

BASIC DIAT FULL

A2.002.1: 25mm Resistivo HM

BASIC DIAT FULL

A2.003.1: 50mm Resistivo HM

BASIC DIAT FULL

A2.004.1: 75mm Resistivo HM

BASIC DIAT FULL

A2.005.1: 100mm Resistivo HM

BASIC DIAT FULL

A4.001.1: 2x3mm Sferico

BASIC DIAT FULL

A4.002.1: 2x15mm Sferico

BASIC DIAT FULL

A4.003.1: Supporto Roller

BASIC DIAT FULL

A4.006.1: Roller Hard

BASIC DIAT FULL

A4.005.1: Roller Medium

BASIC DIAT FULL

A4.004.1: Roller Light

BASIC DIAT FULL

A2.006.1: 25mm Resistivo Ring

BASIC DIAT FULL

A2.007.1: 50mm Resistivo Ring

BASIC | DIAT | FULL

A2.008.1: 25mm Tripolare Ring

OPTIONAL

A2.009.1: 50mm Tripolare Ring

OPTIONAL

A1.001.1: 50mm US-Radial

OPTIONAL

A1.002.1: 50mm US-Focused

OPTIONAL

A1.004.1: 15mm US-Sphere

OPTIONAL

AA.008.1: Carrello Attrezzato

OPTIONAL

3 Precautions for use

Before to proceede to use device, please read this manual and follow warnings and precautions:

-Device must be used only in rooms with electrical equipment designed and manufactured in compliance with applicable laws and regulations, in particular it must be provided to ground.

-Use of the device must be in full compliance with safety requirements and regulations of the country you use, both in respect of the operator and end user, in particular in relation to the use of ultrasound and radiofrequency generators.

- Use only the accessories listed in this manual, which are designed and sized according to this electrical device.

- Follow the instructions of this manual on way to apply the same accessories.

- Keep the device always clean and well-ordered.

- Use device only in accordance with its intended use: The manufacturer assumes no responsibility for damage to persons or property caused by incorrect use of device.

-Place power cable in a way that can not be trampled.

- Do not put any objects on the device and / or power cable.

- Avoid exposure to excessive heat.

- Do not use device in presence of mixture / flammable atmospheres.

- Do not use device in environments with high electromagnetic fields.

- Do not use device in the same room at the same time with other devices that emit radio waves at high frequency (shortwave, microwave, radio frequency depilator, etc. ..).

It may cause malfunctions in the use of device.

- Do not use on the customer other devices at the same time to this.

- Do not use device in case casing,handpiece and cables are beginning to broke.

- For disconnect power cable, handpieces or other accessories, never pull on the cable itself.

- Remember to turn off device at the end of each working day.

- This device must be put into operation and used only by trained and instructed personnel on the techniques of treatment.

- Contact your authorized service provider by the manufacturer in case of damage or deterioration of the accessories.

NOTE: For treatment modality refers to the support attached:
GUIDELINES FOR TREATMENT.

Attention!
Use of device is only allowed to medical staff and / or health care professional if enabled through appropriate course carried out by personnel authorized by the Manufacturer.

Attention!
Device is not protected against penetration of liquids.

Attention!
Any manipulation, substitution, INTERVENTION on the device not performed by AUTHORIZED PERSONNEL voids the warranty and non-liability of the manufacturer for damage to persons or property which may result.

4 Device installation

Attention!
Installation must be performed by a qualified technician.

SEQUENCE OF INSTALLATION

Before installing device, check package content following the instructions described in chapter 2 “package content”

Before installing device, make sure that the electrical system is standard, according to the laws of the country.

Place device on a horizontal shelf suitable for its weight, away from danger for the operator and the patient (doors, heat, etc. ..)

Be careful not to block air vents positioned under device.

Use extreme caution when handle device in order to avoid damage or injury.

Device must not be put into operation in case of fault on the control panel and if you find any damaged parts.

CONNECTION POWER CABLE AND ACCESSORIES

Before to proceed of connection power cable, make sure that general switch is set to "0".

Insert power cable as supplied with the device.

Attention!
Do not connect device to multiple plug if is not standard.

,inse-
n e c-
t o r

insert connector into the socket placed on the rear panel of device, aligning the arrow with the groove in the connector panel by a slight force, up to the end of connector.

For disconnect the appliance, simply unplug connector from the panel.

Attention!
Before connecting device to accessories, make sure of mechanical integrity of the connector and the accessory.

FIRST START

Device does not require preliminary calibration. Move general switch to "1".

After just switch on, device will perform a test of the internal functions, displaying the first screen of FIG 1

FIG 1

After initial test, if anomalies are not found, on the screen will appear Figure 2 and device is ready for use. For correct use of device, refer to the following chapters.

FIG 2

In case test detects an error, it will be show the screen of FIG 3 indicating error code. For a full list of errors, see Appendix G.

FIG 3

5 Device overview

Diathermy Mechanics

INTRODUCTION:

Diathermy Mechanics is a non-invasive treatment generated through emission of ultrasounds, able to produce a temperature rise in tissue depth of approximately 3 cm through conversion of a source of non-thermal energy into heat within tissues.

Energy created by the passage of the acoustic wave, across the fields of compression and rarefaction, is transformed into heat through mechanical friction between the molecules.

Thermal effects of ultrasound can cause:

- Higher extensibility of collagen.
- Increase speed of nerve conduction.
- Alteration of local vascular perfusion.
- Increased enzyme activity.
- Increase contractile activity of skeletal muscle.
- Increase of nociceptive threshold.

Therapeutic Ultrasounds are used clinically in three forms:

- Continuous: for increasing temperature of deep tissues.
- Pulsed: for activation of physiological effects non-thermal.
- As factor vehicle (phonophoresis) for transdermal vehiculation of topical medications.

MECHANISM OF ACTION:

Ultrasounds are non-ionizing radiation of mechanical nature, unlike radio frequency and microwave, with which they identify specific regions of the electromagnetic spectrumic,

are a form of mechanical energy and therefore to be able to propagate needs an elastic means such as plasma or liquid (Humphrey, 2007).

They extends from frequencies above 20 kHz, upper limit of audibility for human ear, up to frequencies of a few hundred MHz and, around 1 GHz, leave place to so-called hypersonic regime.

Ultrasounds, pass through tissues, determine effects traditionally separated into thermal and non-thermal (Miller, 1996), non-thermal regard mainly cavitation. Thermal effects typically occur for exposures in continuous wave, while non-thermal effects for exposures in pulsed wave (Milowska, 2007).

These two effects are not really separable, namely can not assume presence of a single type of effects, except in case of lithotripsy, which effect induced is mechanical. For all other situations, it is wise to assume that non-thermal effects are always accompanied by evolution of heat (Baker, 2001).

INDICATION OF USE:

Clinical indications of mechanical diathermy mainly concern usefulness of heating deep tissue. Heating of collagen increases its extensibility, altering tertiary molecular bond.

Recognized therapeutic effects are:

- Analgesic: due to action of heat and also to a direct action of ultrasound on sensitive nerve endings.
- Action fibrolitic: oscillations particles of tissues, produced by ultrasound, determine disruption of the collagen fibers of fibrous tissues.
-Trophic effects: vasodilation, which follows elevation of temperature, facilitates removal of catabolites and make reach substances nutrients and oxygen to the tissues, thereby ultrasound improves tissue tropism, facilitate repairing of damage tissue and accelerate resolution of inflammatory processes.

Diathermy Mechanics appears to be useful aid for sectors:

- Aesthetic medical
- **Dermatology**
- **Phlebological**
- **Physiotherapy**
- Sports Medicine

CONTRAINDICATIONS:

Ultrasound must not be used on:

- Cardiac area.
- On cephalic region and specialized tissues (metaphysis fertile, testis, ovary).

Special precautions are necessary in the following conditions:

-When you make applications on spine of patients with an outcome of laminectomy for possible damage to spinal cord.

- It is possible to expose with ultrasonic areas with metal implants, but only if you are sure that they are only made of metal.

Ultrasound also must never be applied in presence of:

- Osteoporosis to high turnover.
- Metallic fragments.
- Prosthesis to limbs
- Varicose veins.
- Phlebitis and thrombophlebitis.
- Pace-maker.
- Vascular occlusive disease.
- Haemorrhage, menstruation.
- Neoplastic tissues and surrounding areas.
- Tuberculosis.

Ultrasound also must never be used on:

- Pregnant woman
- During growth phase (children, adolescents).
- Patients who are clearly unable to communicate to the therapist any painful sensation.

STANDARD METHODS OF TREATMENT:

Basic protocol for Diathermy mechanics is essentially based on four steps:

- Applying a gel not saline on the part to be treated.

- Put handpiece on the area with slow and circular movements along muscle fibers. Duration depends on the treated area and protocol in use.
- Removing gel by cleansing and application of special creams.
- Making a drainage of treated area with discharge to the nearest lymphatic gland.

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Electromagnetic Diathermy

INTRODUCTION:

Electromagnetic Diathermy is a non-invasive treatment that uses an electric field, able to-produce an increase of temperature in the tissues through conversion of a source of

electromagnetic energy into heat.

Heat generated is responsible for a number of biological actions that result in therapeutic effects well determined, such as:

- metabolism activation
- Initial vasoconstriction and vasodilation constant.
- Sweating (thermal effect).
- Muscle relaxation.
- Modification of physical properties of fibrotic tissue.
- Increase of cardiac activity and pulmonary hyper-ventilation.
- Increased consumption of O2 and CO2 elimination.

Electromagnetic diathermy is used clinically in three forms:

- Analgesic action and sedative-algo.
- Relaxant action.
- Stimulating action of tissue metabolism.
- Vasomotor action.

MECHANISM OF ACTION:

Diathermy is a form of physical therapy-instrumental that reactivates normal physiological processes of tissue metabolism, transferring energy to the biological field by applying physical principle of the capacitor, resulting in a technology that transfers energy biocompatible and allows to stress the tissues from the inside, therefore without unnecessary dissipation of energy.

Increase homogeneous, in depth, of the temperature generated by electrode does not cause overheating of the skin. structures and tissues are processed through a complete set of electrodes of different sizes allowing to apply therapy in depth and effectively on any structure osteo-my-articular of the human body.

Displacement currents produce three types of effects:

- Biochemist : which balances the enzymatic disorder of fat metabolism and accelerates ultra-structural cell drawing oxygen-rich blood, speeding up and facilitating flow of lymphatic drainage of the peripheral areas not affected by cellulite.

- Thermal: for Joule effect produced by displacement currents, induces a deep endothermic heating and homogeneously distributed.

- Mechanical: increasing velocity of fluid flow,drains hemo-lymphatic stasis and tones vascular walls.

-All three of these effects reinforce each other. action of diathermy therapy then involves all the tissues even in deep way and homogeneous.

Deep action: energy associated with "diathermic" field ,bear no dissipation in transfer to the tissue concering by treatment.

Homogeneous action: increase temperature is generated by displacement currents whose intensity is directly related to the force of attraction and / or repulsion exerted from active electrode which is constant because it is determined at the level of the power generator.

INDICATION FOR USE:

Main effects of biostimulation are:

- Hyperemia tissue for expansion and activation of the capillary microcirculation.
- Hyper-tissue oxygenation with reduction of inflammatory processes.
- Venous-lymphatic drainage with reduction of edema and congestive stasis.
- Removal of catabolites tissue..
- Pain Reduction for desensitization of peripheral terminations and increased endorphins.
- Muscle relaxant action..

CONTRAINDICATIONS:

Electromagnetic diathermy must not be used on::

- Specialized tissues (metaphysis fertile, testis, ovary).

Special precautions are necessary under following conditions:

- When making applications on mucous membranes.
- In presence of varicose veins

Electromagnetic Diathermy also must never be applied in presence of:

- Pace-maker.

- Epilepsy.
- Neoplasms.

Electromagnetic Diathermy also must never be used on:

- Pregnant woman.
- Patients who are clearly unable to communicate to the therapist any painful sensation..

STANDARD METHODS OF TREATMENT:

Basic protocol for Electromagnetic diathermy, is essentially based on three steps:

- Apply a scrolling cream on the part to be treated.
- Put handpiece on the area with slow and circular movements along muscle fibers. Duration depends on the treated area and protocol in use.
- Remove residual cream.

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Microcurrents

INTRODUCTION:

Microcurrents have a wide range of applications in medical field tested by muscular rehabilitation, macular degeneration and wound healing.

Use of microcurrent started in medical field in the United States in 1960, where they treated patients with post-stroke and Bell's palsy.

System is based on the process of rehabilitation of myo-filament stimulating them with small amounts of electricity; reflects same natural body current and works in harmony with body's electrical system.

These pulses trigger a chemical reaction at cellular level by increasing effectiveness of the use of ATP (adenosine triphosphate), a protein which is defined as the energy of life.

MECHANISM OF ACTION:

Numerous clinical studies support the concept of changing skin impedance in certain epidermis areas, corresponding to areas of active pain, projected or developed in their surroundings.

It is shown that skin resistance is an excellent method to objectively identify those areas, as well as to identify various trigger points, comparing to surrounding areas.

These areas are expression of diseases or dysfunctions of the underlying tissues or anatomically related to these areas of the skin, and are related to alterations in neurological information and autonomic correspondent .

Results also show that electromedical commercial products can be helpful in locating these areas altered electro-physiologically.

Microcurrent have aim to restore normal electrophysiological valence of these areas of the skin, by introducing a corrective input to the somatic dysfunction related.

INDICATIONS OF USE:

Clinical indications of Microcurrents mainly concern the utility in treatment of neuropathic pain disorders.

Recognized therapeutic effects are :

- Localized analgesia
- Release of endorphins and neuro-peptides regulators
- Localized hyperemia

Elective indications for this technique are:

- Post-surgical rehabilitation.
- Post-traumatic rehabilitation.
- Syndromes pain osteo-myo-articular.
- Chronic pains.
- Neuropathic pain.
- Acute post-operating pain.
- Peripheral sensory polyneuropathy.
- Trigeminal neuralgia.
- Neurological outcome of herniated nucleus pulposus - Cervical spondylosis.
- Outcomes from painful spinal canal narrow congenital / acquired.
- Plexus disorders acquired and iatrogenic.
- Neuritis
- Thoracic outlet compression syndrome (Thoracic Outlet syndrome).
- Outcomes nerve centers of Neurofibromatosis.
- Complex Regional Pain Syndrome.

CONTRAINDICATIONS:

Microcurrents are not intended for use on:

- Mucous membranes.
- Open wounds
- Sores.
- Skin and fungal infections

-Special attention should be taken:

- In presence of skin alterations.
- In patients with altered skin sensation.

Microcurrents also must never be applied in presence of:

- Pace-maker.
- Epilepsy.

- Neoplasms.

Microcurrents also must never be used on:

- Pregnant women.
- Patients who are clearly unable to communicate to the therapist any painful sensation.

STANDARD METHODS OF TREATMENT:

Basic protocol for the treatment is substantially based on 5 steps

- Application of electrode on the skin after cleansing.
- Set up appropriate amount of microcurrent.
- Perform slow movements on the skin in search of areas with altered impedance.
- Electrode placement on all treatment areas found.
- Mobilisation of the segment (only for dynamic treatments).

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Transdermal vehiculation

INTRODUCTION:

Transdermal vehiculation is a non-invasive treatment, which provides absorption of active ingredients through the skin. This method has been used for years and proposals that are in the market ranging from simple moisturizers creams, medicament gels ,pharmacological plaster.

It is a solution for many forms of blemishes, diseases, inflammatory painful etc.. To achieve desired results, applications must be repeated and amount of active ingredient used is proportional to the time of use of substance.

It is a way to nourish the cells of substances its needs and is a valuable and indispensable route of administration.

Technique of transdermal vehiculation adopted consists in "microperforations multiple of the skin with a roller equipped with needles." . Needling is a technique antiaging micro-invasive, quick, virtually painless, with a very short recovery time and long-lasting: is one of the methods of "revitalization" or "biostimulation" skin and is, in effect, a micro perforation of the skin of the face or of various body regions performed with a particular roller whose purpose is to stimulate in a natural way the production of elastic and collagen fibers, essential elements in give and maintain tone and support to the skin.

In the United States it is called "Collagen Induction Therapy": This technique activates a number of repairing mechanisms that lead to the production of different "growth factors" cellular and tissue, with consequent production of natural collagen.

MECHANISM OF ACTION:

Transdermal vehiculation acts on the skin causing a transient increase in permeability of the tissue.

Active ingredients conveyed, come directly to cellular receptors in dosage prearranged and so therapeutically more effective. Therapeutic effect is direct, without mediation of the bloodstream.

This occurs when in a cell, using an electric pulse, is generated a potential trans-membrane ; double lipid layer of the cell is subjected to a temporary readjustment, with formation of aqueous channels in cell membrane said electropores.

These electropores determine passage of molecules that otherwise would not pass ever the stratum corneum.

With transdermal vehiculation can convey a large quantity of substances, both low and high molecular weight, such as:

- Vitamin C
- Glycosaminoglycans
- Carnitine
- Hyaluronic Acid
- etc..

INDICATION OF USE:

Clinical indications of transdermal vehiculation mainly concern possibility of conveying drugs and active ingredients also with large molecular weight that you do not convey by mere friction of the product.

There are no recognized therapeutic effects to method than those given by powers of the substance carried.

Elective indications for this technique are:

- Acne / Acne Scars.
- Stretch marks.
- Reduction of localized inflammatory status.
- Pain treatment.

CONTRAINDICATIONS:

Do not use transdermal vehiculation on:

- Specialized tissues (metaphysis fertile, testis, ovary).

Special precautions are necessary under following conditions:

- When you makes applications on mucous membranes.
- In presence of Varicose Veins..

Do not use transdermal vehiculation also in presence of:

- Pace-maker.
- Epilepsy.
- Neoplasms.

Do not use transdermal vehiculation on:

- Pregnant women.
- Patients who are clearly unable to communicate to the therapist any painful sensation.

STANDARD METHODS OF TREATMENT:

Basic protocol for transdermal vehiculation is fundamentally based on 5 Steps:

- Cleansing skin to remove makeup residue and smog.
- Apply a lotion that can normalize pH skin.
- Applying a gel containing all active ingredients that plastic dermatologist chooses to convey (vitamins, amino acids, hyaluronic acid, mesotherapy drugs, lipolytic ...).
- Massage gel, of variable duration dependent on the area and by protocol of use.
- Removing gel by cleansing and application of special creams.

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9. Leena Suntornsuk - Capillary Electrophoresis in Pharmaceutical Analysis: A Survey on Recent Applications - Faculty of Pharmacy, Mahidol University, 447 Sri-Ayudhaya Rd., Rajathevee, Bangkok 10400 Thailand

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LIST OF TREATMENTS:

Programs are divided into three main sections:

- Physiotherapy and Sports Medicine

- Neurokinesitherapy.
- Physioesthetics Rehabilitation

Here below are lists of programs on the device..

PHYSIOTHERAPY AND SPORTS MEDICINE

Section Mechanics Diathermy(DACU):

- Arthropathy:
  - Arthritis
  - Arthrosis
  - Adhesive Capsulitis.
- Calcifications:
  - Muscular
  - Tendon
  - Osteophytosis
- Myofascial pains
- Tendinopathies:
  - Bursitis
  - Fasciitis
  - Tendinitis
  - Tendinosis
- Muscle sprain:
  - Elongations
  - Contractures
  - Fibrosis.
- Tendon sprain
- Ligament sprain
- Ematomatose sprain
- Toxicosis:
  - Acidosa
  - Edematomatosa

Section Electromagnetic Diathermy (CAD):

- Function FRAXEL
  - low back pain
  - lumbar sciatica

- Myofascial pains
- Edema

- Function HYPERTHERMIA:
  - Muscle Sprain
  - Muscle fibrosis
  - Preparation for other treatments

Section transdermal vehiculation (MTD):
- Conveying of active ingredients
- Scars / Acne Scars
- Reduction of Inflammatory states
- Treatment of Pain

-NEUROKINESITHERAPY:

Section Neuro Frequency Modulation (Superficial):
- Function PAT:
  - Acute Pain
  - Phase prostaglandin
  - Rehabilitation Post-Traumatic
  - Rehabilitation Post-Surgical
  - Function ACT:
  - Chronic Pain
  - Ischemic phase acidotic
- Function PCT:
  - Acute Pain
  - Chronic Pain

Section Neuro Frequency Modulation (Deep):
-Neurogenic pain:
- Chronic Pain
- Dystrophy Pain
- Complex regional pain syndrome
- Carpal Tunnel
- Acute neuralgia
- Hernia

PHYSIOESTHETICS REHABILITATION:

Section Diathermy Mechanics(HICU):

- Function Lymphoedema :
  - Lymphatic stasis
  - Stimulation of Basal Metabolism
  - Edematous cellulitis
- Function Lipoedemi:
  - Lipomas
  - Cellulite Fibrous

Section Electromagnetic Diathermy (HDC):

- Stimulation of microcirculation
- Stimulation of fibrotic tissue
- Metabolism Activation

-Section transdermal vehiculation (MTD):

- Biostimulation Tissue
- Scars
- Stretch Marks
- Stimulation of microcirculation

Note!
For use refer to Chapter 6 - Using the Device
Therapeutic insights and tabs, can be found in the CD attached to the User Manual

6 Use of device

SWITCHING ON AND SWITCHING OFF

Move the switch placed on the back of device in position "1".

Device performs an initial test.	
In the event that test detects an error,on the screen will be visualized indicating error code 2016 For a full list errors, see Appendix G.	
After initial test, if anomalies are not found, on the screen will be visualized that device is ready for use. For correct use of device, refer to following chapters. Always switch off device when software is on this screen	

Attention!
Pay particular attention to error messages displayed by device.

PHYSIOTHERAPY, FUNCTION "D.A.C.U." - AUTOMATIC

From main screen, press button **F.T.R.**

Press button: **D.A.C.U.**

MAIN MENU Cancel Setting

Press button: **AUTOMATIC**

button: **<<** come back one step.

MAIN MENU Cancel Setting

Select Pathology desired through buttons.

<PATHOLOGY>

Then, confirm pathology through button.

<PATHOLOGY>

Select the Under Pathology, through the buttons.

<UNDER PATHOLOGY>

Then, confirm the Under Pathology through button

<UNDER PATHOLOGY>

Device setting is now ready.

Press: **START** to begin treatment.

Press: **<<** come back one step.

MAIN MENU Cancel Setting

Button **RESET** clear partial time.

Button ◀ Decreases power to transducer.

Button ▶ Increases power to transducer.

Button **PAUSE** suspend treatment.

Here below are listed possible selections provided by device:

FAMILY	PATHOLOGY	MODE	Treatment time(min).
Arthropathy	Arthritis	Superficial	10
		Deep	10
	Arthrosis	Superficial	10
		Deep	10
	Adhesive Capsulitis	---	10
Calcifications	Muscle	Superficial	10
		Deep	10
	Tendon	Superficial	10
		Deep	10
	Osteophytosis	---	10
Myofascial pains	---	---	10
Tendinopathies	Tendinitis	Superficial	10
		Deep	10
	Tendinosis	Superficial	10
		Deep	10
	Fasciitis	Superficial	10
		Deep	10
	Bursitis	Superficial	10
		Deep	10

FAMILY	PATHOLOGY	MODE	Treatment time(min).
Distraction Muscle	Elongations	Superficial	10
		Deep	10
	Contractures	Superficial	10
		Deep	10
	Fibrosis	---	10
Distractions	Tendon	Superficial	10
		Deep	10
	Ligamentous	Superficial	10
		Deep	10
	Ematomatose	Superficial	10
		Deep	10
Toxicosis	Acidosis	Superficial	10
		Deep	10
	Edema	Superficial	10
		Deep	10

Attention!
At the end of each treatment, clean transducers before putting into compartment.

Note!
More information on diseases treated, Therapeutic cards, etc. ..
are available on CD attached to this Manual.

Note!
Treatment time indicated is indicative and dependent on treated surface.

PHYSIOTHERAPY, FUNCTION "D.A.C.U." - MANUAL

From main screen,press button **F.T.R.**

Then press button: **D.A.C.U**

MAIN MENU Cancel Setting

Press button: **MANUAL**

Button **<<** come back one step

MAIN MENU Cancel Setting

Set up data with buttons ◀ and ▶ .

Button **<<** come back one step.

MAIN MENU Cancel Setting

Button **>>** go forward one step.

Set up data with buttons ◀ and ▶ .

Then confirm selection with: . **CONFIRM**

Button **<<** come back one step

MAIN MENU Cancel Setting

Set up of device is now ready:

Press **START** to begin treatment.

Button: **<<** come back one step.

MAIN MENU Cancel Setting

Button **RESET** clear partial time.

Button ◀ Decreases power to transducer.

Button ▶ Increase power to transducer.

Button **PAUSE** suspend treatment

Here below lists of default values used by device for various pathology:

FAMILY	PATHOLOGY	MODE	Start	Stop	Tmr.	DCp	DCm
Arthropathy	Arthritis	Superficial	15	15	---	30	16
		Deep	15	15	---	40	16
	Arthrosis	Superficial	12	12	---	30	18
		Deep	12	12	---	40	18
	Adhesive Capsulitis	---	20	20	---	45	16
Calcifications	Muscle	Superficial	14	14	---	50	16
		Deep	14	14	---	60	16
	Tendon	Superficial	14	14	---	50	15
		Deep	14	14	---	60	15
	Osteophytosis	---	12	12	---	50	12
Myofascial pains	---	---	8	8	---	40	8
Tendinopathies	Tendinitis	Superficial	20	20	---	40	12
		Deep	12	12	---	40	12
	Tendinosis	Superficial	16	16	---	40	10
		Deep	14	14	---	40	10
	Fasciitis	Superficial	14	14	---	40	8
		Deep	10	10	---	40	7
	Bursitis	Superficial	18	18	---	40	12
		Deep	16	16	---	40	14

FAMILY	PATHOLOGY	MODE	Start	Stop	Tmr.	DCp	DCm
Distraction Muscle	Elongations	Superficial	12	12	---	40	8
		Deep	10	10	---	40	9
	Contractures	Superficial	8	8	---	40	14
		Deep	10	10	---	40	14
	Fibrosis	---	12	12	---	45	12
Distraction	Tendon	Superficial	15	15	---	40	12
		Deep	10	10	---	40	10
	Ligamentous	Superficial	16	16	---	40	12
		Deep	12	12	---	45	10
	Ematomatose	Superficial	16	16	---	30	20
		Deep	12	12	---	30	20
Toxicosis	Acidosis	Superficial	18	18	---	40	10
		Deep	12	12	---	40	10
	Edema	Superficial	16	16	---	30	15
		Deep	12	12	---	30	15

Attention!
At the end of each treatment, clean transducers before putting into compartment

Note!
Treatment time indicated is indicative and dependent on treated surface.

Note!
More information on diseases treated, Therapeutic cards, etc. ..
are available on CD attached to this Manual.

PHYSIOTHERAPY, FUNCTION "C.A.D." - FRAXEL

From main menu,press button **F.T.R.**

Then press button: **C.A.D.**

MAIN MENU Cancel Setting

Press button: **FRAXEL** .

Button **<<** come back one step.

MAIN MENU

Set up of device is now ready

Press: **START** to begin treatment.

Button: **<<** come back one step.

MAIN MENU Cancel Setting

Button ▼ Decreases power to transducer.

Button ▲ Increase power to transducer

Button **PAUSE** suspend treatment.

Attention!
At the end of each treatment, clean transducers before putting into compartment

Note!
More information on diseases treated, Therapeutic cards, etc. ..
are available on CD attached to this Manual.

PHYSIOTHERAPY, FUNCTION "C.A.D." - HYPERTHERMIA

From main menu,press button **F.T.R.**

Then press button: **C.A.D.**

MAIN MENU Cancel Setting

Press button: **HYPERTHER-** .

Button **<<** come back one step.

MAIN MENU Cancel Setting

Set up of device is now ready

Press: **START** to begin treatment.

Press: **<<** come back one step.

MAIN MENU

Button ▼ Decrease power to transducer

Button ▲ Increase power to transducer

Button **PAUSE** suspend treatment

Attention!
At the end of each treatment, clean transducers before putting into compartment

Note!
More information on diseases treated, Therapeutic cards, etc. ..
are available on CD attached to this Manual.

PHYSIOTHERAPY, FUNCTION "C.A.D." - MANUAL

From main menu,press button **F.T.R.**

Then press button: **C.A.D.**

MAIN MENU Cancel Setting

Press button: **MANUAL** .

Button **<<** come back one step.

MAIN MENU Cancel Setting

Set up data with buttons ◀ and ▶ .

Button **<<** come back one step.

MAIN MENU Cancel Setting

Button **>>** go forward one step.

Set up data with buttons: ◀ and ▶ .

Then confirm selections with: . **CONFIRM**

Button **<<** come back one step.

MAIN MENU Cancel Setting

Set up of device is now ready

Press: **START** to begin treatment.

Button: **<<** come back one step.

MAIN MENU Cancel Setting

Button ▼ Decrease power of transducer

Button ▲ Increase power of transducer

Button PAUSE suspend treatment

Here below lists of default values used by device for various pathology:

FAMILY	PATHOLOGY	Treatment Time(min)	Port. (KHz)	Modul. (Hz)	Duty P. (%)	Duty M. (%)
FRAXEL	Low back pain	15	400	42	40	50
	Lumbar sciatica	15	400	42	40	50
	Myofascial pains	15	400	42	40	50
	Edema	15	400	42	40	50
HYPERTHERMIA	Muscle contractures	20	400	---	33	100
	Muscle fibrosis	20	400	---	33	100

Attention!
At the end of each treatment, clean transducers before putting into compartment

Note!
Treatment time indicated is indicative and dependent on treated surface.

Note!
More information on diseases treated, Therapeutic cards, etc. ..
are available on CD attached to this Manual.

PHYSIOTHERAPY, FUNCTION "M.T.D."

From main menu,press button **F.T.R.**

Then press button **M.T.D.**

MAIN MENU Cancel Setting

Set up of device is now ready.

Press: **START** to begin treatment.

Button: **<<** come back one step.

MAIN MENU Cancel Setting

Button **RESET** clear partial time.

Button ◀ Decrease power of transducer

Button ▶ Increase power of transducer

Button **PAUSE** suspend treatment.

Here below lists of default values used by device for various pathology:

PATHOLOGY	Treatment Time(min)	Port. (KHz)	Modul. (Hz)	Duty P. (%)	Duty M. (%)
Conveying Active Ingredients	15	400	42	40	50
Scars	15	400	42	40	50
Treatment of Pain	20	400	---	33	100

Attention!
At the end of each treatment, clean transducers before putting into compartment

Note!
Treatment time indicated is indicative and dependent on treated surface.
More information on diseases treated, Therapeutic cards, etc. ..
are available on CD attached to this Manual.

NEUROKINESITHERAPY, “N.M.F. SUPERFICIAL” - P.A.T.

From main menu,press button **N.K.T.**

Then press button: **SUPERFICIAL** .

Button: **<<** come back one step.

MAIN MENU Cancel Setting

Press button: **P.A.T.**

Button: **<<** come back one step.

MAIN MENU Cancel Setting

Select desired frequency sweep

Button: **<<** come back one step.

MAIN MENU Cancel Setting

Press buttons: ◀ or ▶ to change time

Press: **START** to begin treatment

Button: **<<** come back one step.

MAIN MENU Cancel Setting

Button ▼ Decrease power of transducer.

Button ▲ Increase power of transducer.

Button: **PAUSE** suspend treatment

Here below lists of default values used by device for various pathology:

PATHOLOGY	Treatment Time((min)	Frequency Sweep
Acute Pain	20	5-8 / 360-480
Phase prostaglandin	20	5-8 / 360-480
Rehabilitation Post-Traumatic	20	30-120 / 240-360
Rehabilitation Post-Surgery	20	30-120 / 240-360

Attention!
At the end of each treatment, clean transducers before putting into compartment

Note!
Treatment time indicated is indicative and dependent on treated surface.

Note!
More information on diseases treated, Therapeutic cards, etc. ..
are available on CD attached to this Manual.

NEUROKINESITHERAPY, “N.M.F. SUPERFICIAL” - A.C.T.

From main menu,press button **N.K.T.**

Then press button: **SUPERFICIAL** .

Button: **<<** come back one step.

MAIN MENU Cancel Setting

Press button: **A.C.T.**

Button: **<<** come back one step.

MAIN MENU Cancel Setting

Select desired frequency sweep

Button: **<<** come back one step.

MAIN MENU cancel Setting

Press buttons ◀ or ▶ to change time

Press: **START** to begin treatment.

Button: **<<** come back one step.

MAIN MENU Cancel Setting

Button ▼ Decrease power of transducer.

Button ▲ Increase power of transducer.

Button: **PAUSE** suspend treatment

Here below lists of default values used by device for various pathology:

PATHOLOGY	Treatment Time(min)	Frequency Sweep
Chronic Pain	20	5-8 / 15-60 / 30-120
Ischemic acidosis	20	5-8 / 15-60 / 60-180

Attention!
At the end of each treatment, clean transducers before putting into compartment

Note!
Treatment time indicated is indicative and dependent on treated surface.

Note!
More information on diseases treated, Therapeutic cards, etc. ..
are available on CD attached to this Manual.

NEUROKINESITHERAPY,, “N.M.F. SUPERFICIAL” - P.C.T.

From main menu,press button **N.K.T.**

Then press button: **SUPERFICIAL** .

Button: **<<** come back one step.

MAIN MENU Clear setting

Press button: **P.C.T.**

Button: **<<** come back one step

MAIN MENU Clear setting

Select desired frequency sweep

Button: **<<** come back one step

MAIN MENU Clear setting

Press buttons: ◀ or ▶ to change time

Press: **START** to begin treatment.

Button: **<<** come back one step

MAIN MENU Clear setting

Button ▼ Decrease power of transducer.

Button ▲ increase power of transducer.

Button: **PAUSE** suspend treatment

Here below lists of default values used by device for various pathology:

PATHOLOGY	Treatment time(min)	Frequency Sweep
Acute Pain	15	30-360 / 30-480
Chronic Pain	15	5-120 / 15-120

Attention!
At the end of each treatment, clean transducers before putting into compartment

Note!
Treatment time indicated is indicative and dependent on treated surface.

Note!
More information on diseases treated, Therapeutic cards, etc. ..
are available on CD attached to this Manual.

NEUROKINESITHERAPY, “N.M.F. DEEP”

From main menu,press button **N.K.T.**

Then press button: **DEEP** .

Button: **<<** come back one step.

MAIN MENU Clear setting

Select desired frequency sweep

Button: **<<** come back one step

MAIN MENU Clear setting

Press buttons: ◀ or ▶ to change time

Press: **START** to begin treatment

Button: **<<** come back one step

MAIN MENU Clear setting

Button ▼ Decrease power of transducer..

Button ▲ increase power of transducer.

Button: **PAUSE** suspend treatment

Here below lists of default values used by device for various pathology:

PATHOLOGY	Treatment time(min)	Frequency Sweep
Chronic pains	20	3-8 / 15-60
Algodystrophies	20	15-60
Complex regional pain syndrome	20	3-8 / 15-60
Carpal Tunnel	20	15-60
Acute neuralgia	20	30-90 / 60-100
Ernie	20	30-90 / 60-100

Attention!
At the end of each treatment, clean transducers before putting into compartment

Note!
Treatment time indicated is indicative and dependent on treated surface.

Note!
More information on diseases treated, Therapeutic cards, etc. ..
are available on CD attached to this Manual.

NEUROKINESITHERAPY, “N.M.F. MANUAL”

From main menu,press button **N.K.T.**

Then press button: **MANUAL** .

Button: **<<** come back one step

MAIN MENU Clear setting

Set data with buttons ◀ and ▶ .

Button **<<** come back one step

MAIN MENU clear setting

Button **>>** go forward one step.

Set data with buttons ◀ and ▶ .

Then confirm selection with: . **CONFIRM**

Button **<<** come back one step.

MAIN MENU Clear selection

Press buttons: ◀ or ▶ to change time

Press: **START** to begin treatment.

Button: **<<** come back one step.

MAIN MENU Clear setting

Button ▼ Decrease power of transducer.

Button ▲ Increase power of transducer.

Button: **PAUSE** suspend treatment

Here below lists of default values used by device for various pathology:

Attention!
At the end of each treatment, clean transducers before putting into compartment

Note!
Treatment time indicated is indicative and dependent on treated surface.

Note!
More information on diseases treated, Therapeutic cards, etc. ..
are available on CD attached to this Manual.

PHYSIOESTHETICS, FUNCTION “H.I.C.U.”

From main menu,press button **F.E.R.**

Then press button: **H.I.C.U.** .

MAIN MENU Clear setting

Select Pathology desired through buttons.

<PATHOLOGY>

Then confirm pathology through button

<PATHOLOGY>

Set up of device is now ready

Press: **START** to begin treatment

Button: **<<** come back one step

MAIN MENU Clear setting

Button: **RESET** clear partial time

Button ◀ Decrease power of transducer.

Button ▶ Increase power of transducer.

Button **PAUSE** suspend treatment

Here below lists of default values used by device for various pathology:

FAMILY PATHOLOGY (lymphedema)	Treatment time(min)	Port. (KHz)	Modul. (Hz)	Duty P. (%)	Duty M. (%)
Lymphatic stasis	20	38	15	50	80
Edematous cellulite	30	38	15	50	80
Stimulation Basal Metabolism	15	38	15	50	80

FAMILY PATHOLOGY (lymphedema)	Treatment time((min)	Port. (KHz)	Modul. (Hz)	Duty P. (%)	Duty M. (%)
Lipomas	20	38	10	60	90
Cellulite Fibrous	30	38	10	60	90

Attention!
At the end of each treatment, clean transducers before putting into compartment

Note!
Treatment time indicated is indicative and dependent on treated surface.

Note!
More information on diseases treated, Therapeutic cards, etc. ..
are available on CD attached to this Manual.

PHYSIOESTHETICS, FUNCTION “H.D.C.”

From main menu,press button **F.E.R.**

Then press button: **H.D.C.** .

MAIN MENU Clear setting

Set up of device is now ready

Press: **START** to begin treatment.

Button: **<<** come back one step.

MAIN MENU Clear setting

Button ▼ Decrease temperature of transducer.

Button ▲ Increase temperature of transducer.

Button **PAUSE** suspend treatment

Here below lists of default values used by device for various pathology:

PATHOLOGY	Treatment time(min)	Port. (KHz)	Modul. (Hz)	Duty P. (%)	Duty M. (%)
Stimulation of microcirculation	15	400	42	40	50
Stimulation of fibrotic tissue	15	400	42	40	50
Activation of Metabolism	15	400	42	40	50

Attention!
At the end of each treatment, clean transducers before putting into compartment

Note!
Treatment time indicated is indicative and dependent on treated surface.

Note!
More information on diseases treated, Therapeutic cards, etc. ..
are available on CD attached to this Manual.

PHYSIOESTHETICS, FUNCTION “M.T.D.”

From main menu,press button **F.E.R.**

Then press button: **M.T.D.** .

MAIN MENU Clear setting

Set up of device is now ready

Press: **START** to begin treatment.

Button: **<<** come back one step.

MAIN MENU clear setting

Button **RESET** clear partial time

Button Decrease power of transducer.

Button Increase power of transducer..

Button **PAUSE** suspend treatment

Here below lists of default values used by device for various pathology:

PATHOLOGY	Treatment time(min)	Port. (KHz)	Modul. (Hz)	Duty P. (%)	Duty M. (%)
Biostimulation Tissue	10 .. 20	400	---	33	100
scars	3 .. 5	400	---	33	100
Stretch Marks	4 .. 8	400	---	33	100
Stimulation of microcirculation	15 .. 30	400	---	33	100

Attention!
At the end of each treatment, clean transducers before putting into compartment

Note!
More information on diseases treated, Therapeutic cards, etc. ..
are available on CD attached to this Manual.

Note!
Treatment time indicated is indicative and dependent on treated surface.

7 Maintenance of device

Cleaning device

Casing of device and accessories can be cleaned with a damp cloth. It is possible to use an antiseptic cleanser or a mild detergent. Avoid using chemical cleaners, rough cloth or harsh detergents that may damage surfaces of casing and accessories.

Attention! before cleaning or disinfecting unit, disconnect equipment from power grid. Keep equipment away from water.

Attention! Device is not protected against penetration of liquids. Avoid splashing or infiltration of liquids or any kind of diving.

Scheduled Maintenance

System has been designed to operate reliably with minimal maintenance. We recommend you to perform periodic maintenance by authorized personnel. For this purpose, here below a table of schedules maintenance to various parts of the system.

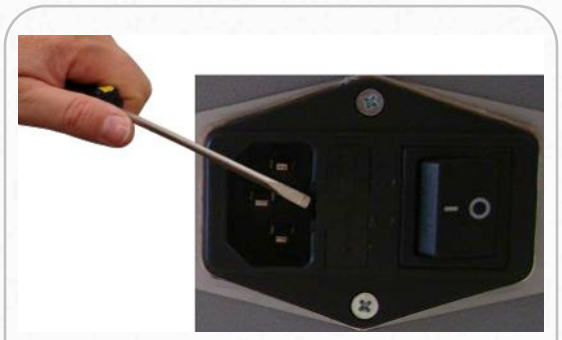
Note: For scheduled maintenance, contact service assistance.

Part of the system	Type of Maintenance	Cadence
Ultrasound Accessories	Visual inspection and functional	500 hours and / or 2 years
Accessories RF / Microcurrents	Visual inspection and functional	1000 hours and / or 2 years
Device	Visual inspection and functional	2000 hours and / or 2 years

Fuse replacement should take place when one or more fuses are damaged.

Intervention (interruption) of fuse normally occurs in the early stages of activation or deactivation of system due to overcurrent.

Note! Electrical and mechanical characteristics of the fuse can be found on rating plate on the back of machine.



For replacement proceed as follows:

-Using a screwdriver, remove cover of fuse seat.

- Remove fuses that are placed on the rear side of the cover.

-Insert new fuse on the rear side of the cover.

-Replace cover on the switch.

Attention! Before proceeding, make sure to have switch off the device and disconnect power cable from network jack.

Attention! Use of fuses with not appropriate electrical characteristics can irreparably damage the device.
In this case, faults are to be considered out of warranty

Appendices

A Technical Specifications

B CE certificate

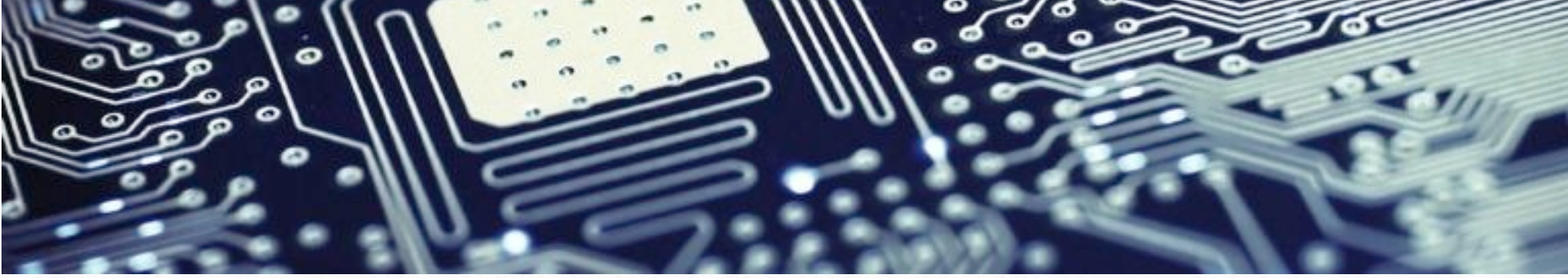
C Warranty Certificate

D Data Plate

E Packaging and Transport

F Technical Assistance

G Error Messages Device



APPENDIX A: Technical Specifications

DESCRIPTION	U.M.	VALUE
General Section		
Input Voltage	Vac	115/230
Input Frequency	Hz	50/60
Dimensions	cm	450x310x140
Weight	Kg	4.5
Operating Temperature	°C	from 5 to 40
Storage Temperature	°C	from 0 to 50
Functioning	EN60601-1	Continuous
Classification of overvoltage category	EN60601-1	II
Warranty	Years	2
Hazard Class	EN60601-1	I-B
Directive MDD	93/42/CEE	class IIa
Display Type - Resolution	X/Y	LCD 640x480
User Interface - Resolution	Touch Screen	50DPI
Low Frequency Section - Diathermy Mechanics		
Maximum Power Transducer	Watt/cm2	1.2
Resonance Frequency	KHz	from 30 to 70
Type of Emission	---	Continuous / Pulsed
Control Output Signal	---	A.C.P.
Maximum Treatment Time	min.	60
Low Frequency Section - Microcurrents		
Maximum Output Current Electrode	mA	375
Work Frequency	Hz	from 1 to 500
Type of Emission	---	Pulsed
Control Output Signal	---	Skin Touch
Maximum Treatment Time	min.	15

Section Medium Frequency - Electromagnetic diathermy		
Maximum Output Current Electrode	mA	1500
Work Frequency	KHz	from 300 to 500
Type of Emission	---	Continuous / Pulsed
Control Output Signal	---	Skin Touch
Maximum Treatment Time	min.	60
Section Medium Frequency - transdermal vehiculation		
Maximum Output Current Electrode	mA	900
Work Frequency	KHz	from 300 to 500
Type of Emission	---	Continuous / Pulsed
Control Output Signal	---	Skin Touch
Maximum Treatment Time	min.	30

NOTE: See attached CD for more information of device

CE
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APPENDIX B: Declaration of Conformity

MANUFACTURER : AWB S.r.l. - Strada del Lavoro, 33/9
47892 Acquaviva - Rep.San Marino (RSM)

LEGAL REPRESENTATIVE FOR EUROPE : Pratellesi Tiziano, Viale Tiberio n. 11, 47921 Rimini (RN), PIVA 04026810400 – Cod. Fiscale: 91136650404

This declaration of conformity is issued under sole responsibility of the manufacturer

Product: DYNAMIX

Type: Multi-frequency generator

Code: M2.010.1

CLASSIFICATION: MDD Class II-A, in accordance with Annex IX of Directive 93/42/EC

INTENDED USE: Medical device for therapeutic use and outpatient

Object of declaration described above is in conformity with following laws:

EU DIRECTIVES

DECISION No 768/2008/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 July 2008 - on a common framework for marketing of products and repealing Decision 93/465/EEC

COUNCIL DIRECTIVE 93/42/EEC of 14 June 1993 concerning medical devices, Edited by:
- ▶ M1 Directive 98/79/EC of the European Parliament and of the Council of 27 October 1998
- ▶ M2 Directive 2000/70/EC of the European Parliament and of the Council of 16 November 2000
- ▶ M3 Directive 2001/104/EC of the European Parliament and of the Council of 7 December 2001
- ▶ M4 Regulation (EC) No. 1882/2003 of the European Parliament and of the Council of 29 September 2003
- ▶ M5 Directive 2007/47/EC of the European Parliament and of the Council of 5 September 2007

DIRECTIVE 2011/65/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 8 June 2011 - on the restriction of use of certain hazardous substances in electrical and electronic equipment

2012/19/UE DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 - Waste Electrical and Electronic Equipment (WEEE)

HARMONISED RULES

IEC 60601-1:2007 Medical electrical equipment Part 1: General requirements for basic safety and essential performance

IEC 60601-1-2:2007 Medical electrical equipment Part 1: General requirements for safety - Collateral standard: Electromagnetic compatibility - Requirements and tests

CERTIFICATION AUTHORITY: TÜV Rheinland Italy S.r.l. - Via Enrico Mattei, 3, 20010 Pogliano Milanese (MI), Milan - ID: 1936

ID. CERTIFICATE 60090406 0001 HD

PLACE AND DATE OF ISSUE:
Rep.San Marino: **01 November 2013**

SIGNATURE
Tiziano Pratellesi

Serial Number

Guide and declaration of manufacturer- electromagnetic emissions		
Dynamix is intended for use in electromagnetic environment specified below. Customer or user of Model Dynamix should assure that it is used in this kind of environment.		
Emissions Test	Conformity	Electromagnetic environment - guide
RF emissions CISPR 11	GROUP 2	Model Dynamix emits RF electromagnetic energy to perform its expected functions. electronic equipment placed nearby may be affected.
RF emissions CISPR 11	CLASS B	Model Dynamix is suitable for use in all buildings including those intended for domestic use and those directly connected to public low voltage power supply which supplies buildings used for domestic purposes. Warning: This device is intended for use only by professional health personnel .This device can cause radio interference or may disrupt operation of equipment located nearby. It may be necessary to take measures to mitigate these disorders, such as re-orientation and re-positioning of Dynamix, or shielding of room.
Harmonic emissions IEC 61000-3-2	NOT APPLICABLE	
Emissions of voltage fluctuations / flicker IEC 61000-3-3	NOT APPLICABLE	

ESD precautionary procedures

Connectors identified with ESD warning symbol should not be touched with fingers or hand-held TOOLS, without before take appropriate precautionary procedures.

Precautionary procedures include:

 # methods that prevent formation of electrostatic charges (see: Guide and declaration of manufacturer - electromagnetic immunity);

Static electricity discharge of a body through casing of device or to ground or to large metal object;

Connect themselves by special clamp and cable to device or to ground.

Guide and declaration of manufacturer — electromagnetic immunity			
Dynamix is intended for use in electromagnetic environment specified below. Customer or user of Model Dynamix should assure that it is used in kind of environment.			
Immunity test	Level test IEC 60601	Conformity level	Electromagnetic environment - guide
Discharge Electrostatic (ESD) IEC 61000-4-2	± 6 kV from contact 8 kV on air	± 6 kV from contact 8 kV on air	Floors should be wood, concrete or ceramic. If floors are covered with synthetic material,relative humidity should be at least 30%.
Transient / speed pulse sequences IEC 61000-4-4	± 2 kV for power supply 1 kV for input / output	± 2 kV for power supply 1 kV for input / output	Quality of network supply voltage should be of typical commercial or hospital environment.
Overvoltage IEC 61000-4-5	± 1 kV between phases ± 2 kV phase-to-ground	± 1 kV between phases ± 2 kV phase-to-ground	
Voltage drop, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5% UT (> 95% hole in UT) for 0.5 cycles 40% UT (60% hole in UT) for 5 cycles 70% UT (30% hole in UT) for 25 cycles <5% UT (> 95% hole UT) for 5 s	<5% UT (> 95% hole in UT) for 0.5 cycles 40% UT (60% hole in UT) for 5 cycles 70% UT (30% hole in UT) for 25 cycles <5% UT (> 95% hole UT) for 5 s	
Magnetic field to line frequency (50/60Hz) IEC 61000-4-8	3 A/m	3 A/m	Magnetic fields at network frequency should have characteristic levels of typical commercial or hospital environment.
---	---	---	RF communications equipment portable and mobile should not be used closer to any part of Dynamix, including cables, except when they respect recommended separation distance calculated from equation applicable to frequency of transmitter.

Guide and declaration of manufacturer — electromagnetic immunity			
–-	–-	–-	Recommended separation distance
Conducted RF IEC 61000-4-6	3 V eff. from 150 kHz to 80 MHz outside ISM bands (a)	3 V eff.	d = 1,16 √P
Radiated RF IEC 61000-4-3	3 V/m from 80 MHz to 2,5 GHz	3 V/m	d = 1.16 √ P from 80 MHz to 800 MHz d = 2.33 √ P from 800 MHz to 2.5 GHz Where P is maximum rated power output of transmitter in watts (W) according to the transmitter manufacturer and d is recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey(a) should be less than compliance level for each frequency interval (b). Interference may occur in vicinity of equipment marked with following symbol:
NOTE 1: UT is AC mains voltage prior to application of test level.			
NOTE 2: At 80 MHz and 800 MHz, applies separation distance for higher frequency range. NOTE 3: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			
(a) Field strengths from fixed transmitters, such as base stations for radio (cellular / cordless) telephones and land mobile radios, amateur radio equipment, transmitters, AM and FM radio broadcast and TV broadcast can not be predicted theoretically with accuracy. For assess electromagnetic environment due to fixed RF transmitters you should consider an electromagnetic site survey. If measured field strength in place where you use Dynamix exceeds level of compliance with applicable above, should be placed under observation operation of Dynamix. If abnormal performance is observed, additional measures may be necessary, such as reorienting or position of Dynamix. (b) Field strength in frequency range from 150 kHz to 80 MHz should be less than 3 V / m.			

Recommended separation distances between portable and mobile communications equipment and Dynamix			
Dynamix is intended for use in an electromagnetic environment which RF radiated disturbances are under control. Customer or user of Dynamix can help to prevent electromagnetic interference by maintaining a minimum distance between portable and mobile communication devices in RF communications equipment (transmitters) and Dynamix, as recommended below, according to maximum output power of communications equipment .			
Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	from 150 kHz to 80 MHz d=1,16 * √P	**from 80 MHz to 800 MHz** d=1,16 * √P	**from 800 MHz to 2,5 GHz** d=2,33 * √P
0,01	0,11	0,11	0,23
0,1	0,36	0,36	0,73
1	1,16	1,16	2,33
10	3,68	3,68	7,37
100	11,66	11,66	23,33
Specified transmitters for a maximum output power not listed above, recommended separation distance d in meters (m) can be estimated using equation applicable to frequency of transmitter, where P is maximum rated power output transmitter in watts (W) according to manufacturer of transmitter. NOTE 1 At 80 MHz and 800 MHz, applies separation distance for higher frequency range. NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			

APPENDIX C: Warranty Certificate

Under this warranty A.W.B. s.r.l., site in Repubblic of San Marino, Strada del Lavoro 33/9, Z.I.Gualdicciolo, 47892 Acquaviva, warrants this product against compliance defects for duration of YEARS 2 (two) from date of delivery of product. If during this period of guarantee ,product proves compliance defective, AWB srl or authorized dealers will provide to repair or (at discretion of AWB srl) replace product or its defective parts upon in terms and conditions set forth below, without charge for cost of labor and materials.

Terms

This warranty will be valid only if product with compliance defects will be presented, together with invoice or other proof of purchase and warranty certificate ,to dealer, who will be responsible to send product to an authorized service center AWB s.r.l. together with a statement from reseller (indicating date of delivery, type of product and name). A.W.B.s.r.l. reserve right to refuse work under warranty in absence of these documents, or in case of information contained in it are incomplete or illegible.

This warranty does not cover any costs and / or damages and / or defects resulting from modifications or adjustments to product without prior written consent of AWB srl, in order to conform to safety standards or national or local regulations in other countries than those for which product was originally designed and manufactured.

This warranty will be void if model or serial number marked on product has been altered, deleted, removed or made illegible.

Are excluded from warranty:

- Periodic maintenance or replacement of parts subject to normal usury and wear and tear.
-Any adjustments and / or modifications made to product without prior written consent of manufacturer to change characteristics to those described in manual of use and maintenance.
- Accessories, however, warranty is void in those cases where failure is caused by faulty power supply or connection, use of non-original accessories or damage caused by bumps, drops and tampering.
- Damage resulting from:
  - Misuse, included but not limited to: (a) Use of product for other purposes than those provided or failure to follow instructions AWB srl on correct use and maintenance of product, (b) Installation and use of product not comply with technical standards and safety regulations in the country which it is used, (c) improper or incorrect installation of the software.
  -Repairs by unauthorized personnel or by customer himself.
  -Defects of plant or equipment which product has been connected.

Replacements and / or repairs under warranty which cause immobilization of instrument do not have in any case effect of prolonging duration of warranty. Will not be granted any compensation for lack of enjoyment. Costs of travel and possible transport of equipment and spare parts to and from laboratories of the service are excluded from this guarantee.

Replaced parts become property of manufacturer. Buyer is obliged to give A.W.B.s.r.l. 15 working days and means necessary to proceed with necessary repairs and deliveries of spare parts replaced. Otherwise, it will be exempted from guarantee.

Restriction and Limitation of Liability

Failure to follow terms and conditions of guarantee during and at expiration of warranty, it can be cause of exemption from liability of manufacturer in case of damage due to products delivered.

Manufacturer is not liable for any property damage or bodily accident, which occurred after an installation does not comply with legal or regulatory provisions of country which it occurs appliance installation, following an intervention not provided by user manual of manufacturer and / or carried by user or by a third party not approved by manufacturer.

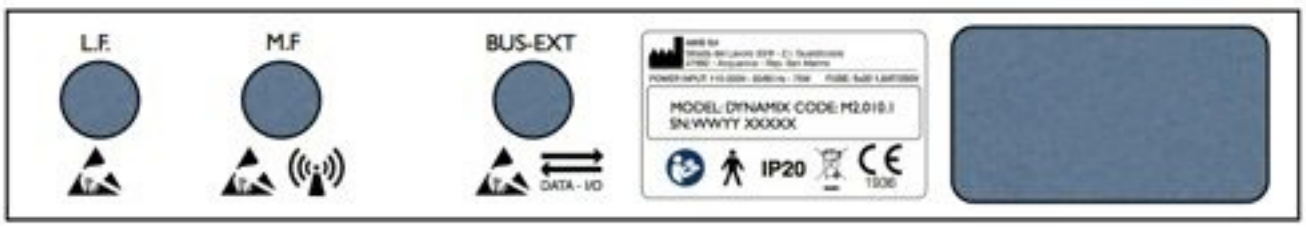
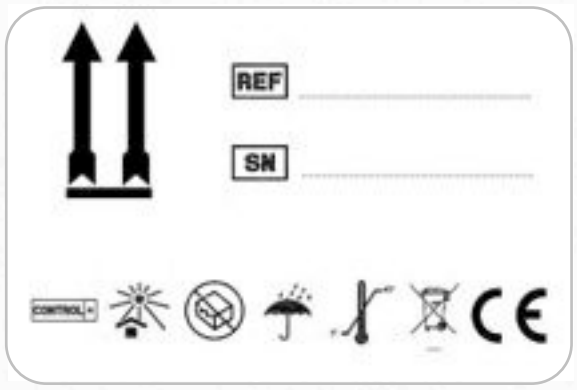
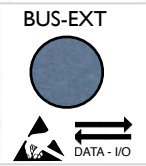
Warranty is also excluded in following cases

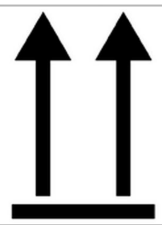
Damage occurring during transport. This unit travels to risk and danger of recipient. It is latter addressee before proceeding to shipment make sure it is in perfect condition.

Lack of maintenance prescribed in manual of the manufacturer.

Incorrect installation, faulty electrical connections or no connection to ground, a different voltage than that indicated on rating plate.

APPENDIX D: Data Plate

DISPOSITIVO	
Device	
Packing	
	Output Diathermy Mechanics and Microcurrent.
	Output Electromagnetic Diathermy and Transdermal Vehiculation
	Auxiliary Output and Expansion Data (Reserved use only for Technical Assistance Service)

REF	DESCRIPTION	REF	DESCRIPTION
	PROTECT AGAINST SUNLIGHT		CE MARKING
	STORE IN A DRY PLACE	1936	ACCREDITATION NUMBER OF MEDICAL DEVICE
	TEMPERATURE LIMITS		FOLLOW INSTRUCTIONS FOR USE
	CODE		MANUFACTURER
	SERIAL NUMBER	IP20	PROTECTION DEGREE IP
	THIS SIDE UP		ESD WARNING SIGNAL
	POSITIVE CONTROL		RADIATION NON-IONIZING
	DO NOT USE IF PACKAGE IS DAMAGED		EXPANSION DATA
	DIVERSIFIED DISPOSAL		TYPE B APPLIED PART
	AC POWER		

APPENDIX E: Packing and Shipping

Choose an appropriate size and type of packaging in weight, shape and nature of contents of shipping. During operations of transport and distribution containers not adequate, or filled in insufficient or excessive way, may deteriorate or open.

It is recommended use high quality packing material to protect contents of your shipments and shipments that travel along with them, shock and vibration and also from possible exposure to adverse weather conditions.

Boxes available in various materials, sizes and accessories for closure, are most widely used type of packaging.

Attention! Use original packaging is a great way to ensure an expedition protected from bumps and accidental damage

APPENDIX F: Technical Assistance

List of Authorized Service Centres:

AWB S.r.l

Strada del Lavoro 33/9 Z.I. Gualdicciolo
47891 - Acquaviva - Rep.San Marino
Tel: +378 911477 - Fax: +378 913704
e-mail: ccare@awb-engineering.com

a-circle s.p.a.

Via Ferrara, 21 - 40018
San Pietro in Casale(BO) - Italy
Tel: +39 051 817962 - Fax: +39 051 811349
e-mail: assistenza@a-circle.it

CODE	DESCRIPTION	SOLUTION
2006	Accessories not provided	- Press “CONFIRM” -Turn off device -Check Accessory -Turn on device - If problem persists, contact your authorized service
2007	Accessories not regularly matched	- Press “CONFIRM” - Turn off device - Check Accessory - Turn on device - If problem persists, contact your authorized service
2008	Device Temperature too high	- Press “CONFIRM” - Turn off device - Check air intake device - Wait 15 minutes - Turn on device - If problem persists, contact your authorized service
2009	Reading Accessory	- Press “CONFIRM” - Turn off device - Check Accessory - Turn on device - If problem persists, contact your authorized service
2010	Accessory not initialized	- Press “CONFIRM” - Turn off device - Check Accessory - Turn on device - If problem persists, contact your authorized service

APPENDIX G: Device Error Messages

CODE	DESCRIPTION	SOLUTION
8003	Unknown error	- Press “CONFIRM” - Turn off device - Turn on device - If problem persists, contact your authorized service
8004	Request Scheduled Service	- Press “CONFIRM” - Contact your authorized service

CODE	DESCRIPTION	SOLUTION
100	Communication error between modules	- Press “CONFIRM” - Turn off device - Turn on device - If problem persists, contact your authorized service
101	Notice: 50 hours left for scheduled maintenance of device.	- Press “CONFIRM” - Contact your authorized service
1005	Operation not Permitted	- Press “CONFIRM” -Turn off device - Turn on device - If problem persists, contact your authorized service
1007	Time-Out Communications	- Press “CONFIRM” - Turn off device - Turn on device - If problem persists, contact your authorized service
2000	Accessories not found	- Press “CONFIRM” - Turn off device -Check Accessory - Turn on device -If problem persists, contact your authorized service

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